

IN THE CLAIMS:

1. (original) A correction coefficient calculating method for X-ray CT systems, comprising the steps of:

positioning a phantom, which has an oblong section, in a scan field between an X-ray tube and an X-ray detector, and scanning the phantom from plural directions so as to acquire a plurality of views; and

calculating a correction coefficient, which is used to correct projection information to be acquired from a subject, using the results of the scan.

2. (original) A correction coefficient calculating method for X-ray CT systems of Claim 1, wherein the final correction coefficient is calculated as an average between the first correction coefficient and the second correction coefficient.

3. (original) A beam-hardening post-processing method for X-ray CT systems, comprising the steps of:

positioning a phantom, which has an oblong section, in a scan field between an X-ray tube and an X-ray detector, scanning the phantom from one or plural directions so as to acquire a plurality of views, and producing one sinogram using first projection information;

correcting the first projection information in terms of the beam-hardening effect so as to produce second projection information;

fitting a first function to the second projection information so as to produce third projection information;

fitting a second function to the third projection information values, the third projection information values being provided as functions having as independent variables

the second projection information values that are sampled in relation to all the views and each of the channels of said X-ray detector constituting the second projection information; and

correcting projection information acquired from a subject, who is positioned in the scan field, using a correction function obtained as the second function.

4. (currently amended) ~~An X-ray CT system, in which projection information acquired from a subject is corrected using correction coefficients calculated according to the beam-hardening post-processing method of Claim 3.~~ including a phantom having an oblong section positioned in a scan field between an X-ray tube and an X-ray detector, said X-ray CT system configured to:

scan the phantom from one or plural directions to acquire a plurality of views, and produce one sinogram using first projection information;

correct the first projection information in terms of the beam-hardening effect to produce second projection information;

fit a first function to the second projection information to produce third projection information;

fit a second function to the third projection information values, the third projection information values being provided as functions having as independent variables the second projection information values that are sampled in relation to all the views and each of the channels of said X-ray detector constituting the second projection information; and

correct projection information acquired from a subject, who is positioned in the scan field, using a correction function obtained as the second function.